

IN THE CLAIMS

Please amend the claims as follows:

1. (Currently Amended) A protection circuit for an apparatus comprising:

a single supply voltage bus for supplying a voltage;

a single ground bus for supplying a return for current

5 from the supply bus;

a single protection line bus;

a plurality of fans ~~(Fi)~~units, ~~the protection circuit comprises a plurality of elements (Zi; Ii)~~each fan unit comprising

a fan and an element, each said element (Zi, Ii) being associated

10 with a corresponding one of the plurality of fans (Fi) and having a property with a value depending on an operation condition of the

corresponding one of said fans (Fi) fan, wherein the fan is arranged

between the single supply voltage bus and the single ground bus,

and the elements (Zi; Ii) beingelement is arranged in parallel

15 between a reference line (GND) and athe single protection line

(PROT), bus and the single ground bus; and

a detection circuit ~~(2)~~coupled tobetween the single

protection line (PROT) bus and the single ground bus for detecting

whether a total value of the parallel-arrangedplurality of elements

20 (Zi) of the plurality of fan units arranged in parallel to the

single protection line bus and the single ground bus, said

detection circuit comprising comparing means for determining whether said total value of the plurality of elements is in a range indicating that at least one of the fans $\{F_i\}$ is in an abnormal
25 operation condition.

2. (Currently Amended) A The protection circuit as claimed in claim 1, characterized in that each of the element $\{Z_i;$
 $I_i\}$ plurality of elements comprises a current source $\{I_i\}$ for supplying a current whose thehaving a value depends dependent on
5 the operation condition of the corresponding fan $\{F_i\}$.

3. (Currently Amended) A The protection circuit as claimed in claim 1, characterized in that each of the plurality of elements
element $\{Z_i;$ $I_i\}$ comprises an impedance element $\{Z_i\}$ of whose
thehaving a value depends dependent on the operation condition of
5 the corresponding fan $\{F_i\}$.

4. (Currently Amended) A The protection circuit as claimed in claim 3, characterized in that each of the impedance element
 $\{Z_i\}$ elements comprises a series arrangement of a resistor $\{R_i\}$ and a main current path of an electronic switch $\{S_i\}$, a control input
5 of the electronic switch $\{S_i\}$ being coupled to the corresponding fan $\{F_i\}$ for receiving a signal $\{IS_i\}$ indicating whether the fan $\{F_i\}$ is operative or inoperative.

5. (Currently Amended) A cooling system, having a protection circuit, comprising a plurality of fans (Fi) and a protection circuit for an apparatus comprising the plurality of fans (Fi), the protection circuit comprisescomprising:

5 a single supply voltage bus for supplying a voltage;

a single ground bus for supplying a return for current from the supply bus;

a single protection line bus;

10 a plurality of elements (Zi; Ii) fan units, each fan unit comprising a fan and an element, each said element (Zi, Ii) being associated with a corresponding one of the plurality of fans (Fi) and having a property with a value depending on an operation condition of the corresponding one of said fans (Fi) fan, wherein the fan is arranged between the single supply voltage bus and the
15 single ground bus, and the elements (Zi; Ii) beingelement is arranged in parallel between a reference line (GND) and a the single protection line (PROT), bus and the single ground bus; and

a detection circuit (2) coupled to between the single protection line (PROT) bus and the single ground bus for detecting
20 whether a total value of the parallel-arranged plurality of elements (Zi) of the plurality of fan units arranged in parallel to the single protection line bus and the single ground bus, said detection circuit comprising comparing means for determining

whether said total value of the plurality of elements is in a range
25 indicating that at least one of the fans $\{F_i\}$ is in an abnormal
operation condition to protect overheating of the apparatus.

6. (Currently Amended) A display apparatus comprising a
display device, ~~a plurality of fans and a cooling system having a~~
~~protection circuit~~ for cooling the display apparatus, ~~and a~~
~~protection circuit~~, characterized in that the protection circuit
5 comprises:

a single supply voltage bus for supplying a voltage;

a single ground bus for supplying a return for current
from the supply bus;

a single protection line bus;

10 a plurality of elements $\{Z_i; I_i\}$ fan units, each fan unit
comprising a fan and an element, each said element $\{Z_i, I_i\}$ being
~~associated with a corresponding one of the plurality of fans $\{F_i\}$~~
~~and having a property with a value depending on an operation~~
~~condition of the corresponding one of said fans $\{F_i\}$~~ fan, wherein
15 the fan is arranged between the single supply voltage bus and the
single ground bus, and the elements $\{Z_i; I_i\}$ being
element is
arranged in parallel between a reference line (GND) and a
single protection line $\{PROT\}$, bus and the single ground bus; and
a detection circuit $\{2\}$ ~~coupled to~~ between the single
20 protection line $\{PROT\}$ bus and the single ground bus for detecting

~~whether~~ a total value of the ~~parallel-arranged~~ plurality of elements
~~(Zi)~~ of the plurality of fan units arranged in parallel to the
single protection line bus and the single ground bus, said
detection circuit comprising comparing means for determining
25 whether said total value of the plurality of elements is in a range
indicating that at least one of the fans ~~(Fi)~~ is in an abnormal
operation condition, to protect overheating of the display
apparatus.

7. (Currently Amended) A ~~The~~ display apparatus as claimed in
claim 6, characterized in that the detection circuit ~~(2)~~ comprises
means for selectively limiting the power dissipation in the display
apparatus in dependence on a number of fans ~~(Fi)~~ operating
5 abnormally.